

IN THE TITLE:

Please amend the title in the Notice of Allowance as follows:

Light Emitting Element And Light Emitting Device Having The Light ~~Emitting~~ Emitting
Element

IN THE SPECIFICATION:

Please replace the paragraphs below of published application US 2007/0194692 (the publication of the present application with the following amended paragraphs:

[0004] For example, for the structure of a layer containing a luminescent material, a multilayer structure composed of a combination of a layer containing a highly carrier injecting substrate substance, a layer containing a highly carrier transporting substrate substance, and the like is proposed so that a light emitting region is formed in a region away from an electrode. Further, as for a highly carrier transporting substance, for example, a triazine derivative disclosed in Patent document 1 or Patent document 2 is proposed.

[0010] Further, it is preferable that the heteroaromatic group have a monocyclic structure of a 5-membered ring, a monocyclic structure of a 6-membered ring, a polycyclic structure containing any one of a 5-membered ring and a 6-membered ring, or a polycyclic structure containing both of a 5-membered ring and a 6-membered ring. Furthermore, the heteroaromatic group contains any one atom of nitrogen, ~~oxide~~ oxygen, and sulfur.

[0013] In the group represented by the formula (2), R^{13} and R^{14} may be individually independent, or bonded to form a ring. When R^{13} and R^{14} are individually independent, R^{13} and R^{14} are individually any one of hydrogen, an alkyl group having 1 to 6 carbon atoms, an aryl group having 6 to 30 carbon atoms (preferably, 6 to 14 carbon atoms), and a heteroaromatic group (heteroaryl group) having 2 to 18 carbon atoms (preferably, 2 to 10 carbon atoms). It is to be noted

that the alkyl group includes an aliphatic heterocyclic group in the present invention. However, it is preferable to use a chain alkyl group since handling of the triazine derivative is easy. The preferable number of carbon atoms in the aryl group and the heteroaromatic group is determined in consideration of a raw material and easiness of handling of the triazine derivative. In addition, the aryl group and the heteroaromatic group may individually have a substituent. Further, it is preferable that the heteroaromatic group have a monocyclic structure of a 5-membered ring, a monocyclic structure of a 6-membered ring, a polycyclic structure containing any one of a 5-membered ring and a 6-membered ring, or a polycyclic structure containing both of a 5-membered ring and a 6-membered ring. Furthermore, the heteroaromatic group contains any one atom of nitrogen, ~~oxide~~ oxygen, and sulfur.

[0015] In the group represented by the formula (5), R^{15} is any one of hydrogen, an aryl group having 6 to 30 carbon atoms (preferably, 6 to 14 carbon atoms), and a heteroaromatic group (heteroaryl group) having 2 to 18 carbon atoms (preferably, 2 to 10 carbon atoms). The preferable number of carbon atoms in the aryl group and the heteroaromatic group is determined in consideration of a raw material and easiness of handling of the triazine derivative. Here, the aryl group may have one or more substituents such as an alkyl group having 1 to 6 carbon atoms, an acyl group having 1 to 6 carbon atoms, a halogen group, and an oxo group, or may be unsubstituted. It is to be noted that the alkyl group includes an aliphatic heterocyclic group in the present invention. However, it is preferable to use a chain alkyl group since handling of the triazine derivative is easy. It is preferable that the heteroaromatic group have a monocyclic structure of a 5-membered ring, a monocyclic structure of a 6-membered ring, a polycyclic structure containing any one of a 5-

membered ring and a 6-membered ring, or a polycyclic structure containing both of a 5-membered ring and a 6-membered ring. Furthermore, the heteroaromatic group contains any one atom of nitrogen, ~~oxide~~ oxygen, and sulfur.

[0016] In the group represented by the formula (6), R^{16} and R^{17} are individually independent, and any one of hydrogen, an aryl group having 6 to 30 carbon atoms, a heteroaromatic group (heteroaryl group) having 2 to 18 carbon atoms (preferably, 2 to 10 carbon atoms), and a cyano group. Preferable number of carbon atoms in the heteroaromatic group is determined in consideration of a raw material and easiness of handling of the triazine derivative. Here, the aryl group may have one or more substituents such as an alkyl group having 1 to 6 carbon atoms, a halogen group, and an aryl group having 6 to 30 carbon atoms (preferably, 6 to 14 carbon atoms), or may be unsubstituted. It is to be noted that the alkyl group includes an aliphatic heterocyclic group in the present invention. However, it is preferable to use a chain alkyl group since handling of the triazine derivative is easy. The preferable number of carbon atoms in the aryl group is determined in consideration of a raw material and easiness of handling of the triazine derivative. It is preferable that the heteroaromatic group have a monocyclic structure of a 5-membered ring, a monocyclic structure of a 6-membered ring, a polycyclic structure containing any one of a 5-membered ring and a 6-membered ring, or a polycyclic structure containing both of a 5-membered ring and a 6-membered ring. Furthermore, the heteroaromatic group contains any one atom of nitrogen, ~~oxide~~ oxygen, and sulfur.

[0017] In the a group represented by the formula (7), R^{18} is any one of hydrogen, an alkyl group having 1 to 6 carbon atoms, an aryl group having 6 to 30 carbon atoms (preferably, 6 to 14

carbon atoms), and a heteroaromatic group (heteroaryl group) having 2 to 18 carbon atoms (preferably, 2 to 10 carbon atoms). It is to be noted that the alkyl group includes an aliphatic heterocyclic group in the present invention. However, it is preferable to use a chain alkyl group since handling of the triazine derivative is easy. The preferable number of carbon atoms in the aryl group and the heteroaromatic group is determined in consideration of a raw material and easiness of handling of the triazine derivative. Here, the aryl group may have a substituent such as a dialkylamino group. It is preferable that the heteroaromatic group have a monocyclic structure of a 5-membered ring, a monocyclic structure of a 6-membered ring, a polycyclic structure containing any one of a 5-membered ring and a 6-membered ring, or a polycyclic structure containing both of a 5-membered ring and a 6-membered ring. Furthermore, the heteroaromatic group contains any one atom of nitrogen, ~~oxide~~ oxygen, and sulfur.

[0112] In order to exhibit white or whitish light emission from this second layer 112, for example, a structure in which, from the first electrode 101, TPD (aromatic diamine), 3-(4-tert-butylphenyl)-4-phenyl-5-(4-biphenyl)-1,2,4-triazole (abbreviated: TAZ), ~~tris(8-quinolinolate)aluminum~~ tris(8-quinolinolato)aluminum (abbreviation: Alq₃), Alq₃ doped with Nile Red that is a red luminescent dye, and Alq₃ are laminated in this order by a evaporation method or the like can be used.

[0113] In addition, a structure in which, from the first electrode 101, NPB, NPB doped with perylene, ~~bis(2-methyl-8-quinolinolate)-4-phenylphenolate-aluminum~~ bis(2-methyl-8-quinolinolato)-

4-phenylphenolato-aluminum (abbreviation: BAlq) doped with DCM1, BAlq, and Alq₃ are laminated in this order by an evaporation method or the like can be used.

[0151] Further, it is preferable that the heteroaromatic group have a monocyclic structure of a 5-membered ring, a monocyclic structure of a 6-membered ring, a polycyclic structure containing any one of a 5-membered ring and a 6-membered ring, or a polycyclic structure containing both of a 5-membered ring and a 6-membered ring. Furthermore, the heteroaromatic group contains any one atom of nitrogen, ~~oxide~~ oxygen, and sulfur.

[0154] Further, it is preferable that the heteroaromatic group have a monocyclic structure of a 5-membered ring, a monocyclic structure of a 6-membered ring, a polycyclic structure containing any one of a 5-membered ring and a 6-membered ring, or a polycyclic structure containing both of a 5-membered ring and a 6-membered ring. Furthermore, the heteroaromatic group contains any one atom of nitrogen, ~~oxide~~ oxygen, and sulfur.

[0157] Further, it is preferable that the heteroaromatic group have a monocyclic structure of a 5-membered ring, a monocyclic structure of a 6-membered ring, a polycyclic structure containing any one of a 5-membered ring and a 6-membered ring, or a polycyclic structure containing both of a 5-membered ring and a 6-membered ring. Furthermore, the heteroaromatic group contains any one atom of nitrogen, ~~oxide~~ oxygen, and sulfur.

[0159] Further, it is preferable that the heteroaromatic group have a monocyclic structure of a 5-membered ring, a monocyclic structure of a 6-membered ring, a polycyclic structure containing any one of a 5-membered ring and a 6-membered ring, or a polycyclic structure containing both of a 5-membered ring and a 6-membered ring. Furthermore, the heteroaromatic group contains any one atom of nitrogen, ~~oxide~~ oxygen, and sulfur.

[0164] It is preferable that the heteroaromatic group have a monocyclic structure of a 5-membered ring, a monocyclic structure of a 6-membered ring, a polycyclic structure containing any one of a 5-membered ring and a 6-membered ring, or a polycyclic structure containing both of a 5-membered ring and a 6-membered ring. Furthermore, the heteroaromatic group contains any one atom of nitrogen, ~~oxide~~ oxygen, and sulfur.

[0166] It is preferable that the heteroaromatic group have a monocyclic structure of a 5-membered ring, a monocyclic structure of a 6-membered ring, a polycyclic structure containing any one of a 5-membered ring and a 6-membered ring, or a polycyclic structure containing both of a 5-membered ring and a 6-membered ring. Furthermore, the heteroaromatic group contains any one atom of nitrogen, ~~oxide~~ oxygen, and sulfur.

[0167] In the group represented by the formula (15), Y is an aromatic group, a heterocyclic, or an alicycle. It is to be noted that the aromatic group may have a substituent such as an oxo group, or may be unsubstituted. Further, it is preferable that the heterocyclic have a monocyclic structure of a 5-membered ring, a monocyclic structure of a 6-membered ring, a polycyclic structure containing

any one of a 5-membered ring and a 6-membered ring, or a polycyclic structure containing both of a 5-membered ring and a 6-membered ring. Furthermore, the heterocyclic is preferable to contain any one atom of nitrogen, ~~oxide~~ oxygen, and sulfur. R^{44} and R^{45} are individually independent, or bonded to form a ring. When R^{44} and R^{45} are independent, R^{44} and R^{45} are individually any one of hydrogen, an aryl group having 6 to 30 carbon atoms (preferably, 6 to 14), a heteroaromatic group (heteroaryl group) having 2 to 18 (preferably, 2 to 10), and an alkyl group having 1 to 6 carbon atoms. It is to be noted that the alkyl group includes an aliphatic heterocyclic group in the present invention. However, it is preferable to use a chain alkyl group since handling of the triazine derivative is easy. The preferable number of carbon atoms in the aryl group and the heteroaromatic group is determined in consideration of a raw material and easiness of handling of the triazine derivative.

[0168] It is preferable that the heteroaromatic group have a monocyclic structure of a 5-membered ring, a monocyclic structure of a 6-membered ring, a polycyclic structure containing any one of a 5-membered ring and a 6-membered ring, or a polycyclic structure containing both of a 5-membered ring and a 6-membered ring. Furthermore, the heteroaromatic group contains any one atom of nitrogen, ~~oxide~~ oxygen, and sulfur.

[0212] FIG. 7A is an example of an equivalent circuit diagram of a pixel, which includes a signal line 6114, a power supply line 6115, a scanning line 6116, and at an intersecting portion thereof, an light emitting element ~~[[603]]~~ 613, transistors 6110 and 6111, and a capacitor 6112. For the light emitting element ~~[[603]]~~ 613, the structure shown in the embodiment described above is used. A video signal is inputted into the signal line 6114 by a signal line driver circuit. The transistor

6110 can control supply of potential of the video signal to a gate of the transistor 6111 in accordance with a selection signal to be inputted into the scanning line 6116. The transistor 6111 is a driving transistor that can control supply of current to the light emitting element 613 in accordance with the potential of the video signal. The capacitor 6112 can hold voltage between gate and source of the transistor 6111. It is to be noted that although the capacitor 6112 is illustrated in FIG. 7A, it is not required to be provided if the gate capacitance of the transistor 6111 or the other parasitic capacitance is enough.

[0213] FIG. 7B is an equivalent circuit diagram of a pixel where a transistor 6118 and a scanning line 6119 are additionally provided to the pixel shown in FIG. 7A. By the transistor 6118, potential of the gate and the source of the transistor 6111 can be equal to each other so that the state in which no current flows into the light emitting element 613 is forcibly made. Therefore, the period for each subframe period can be set to be shorter than a period for inputting video signals into all pixels. Further, depending on the driving method, the state in which no current flows into the light emitting element 613 can be forcibly made even in a pixel shown in FIG. 7A.

[0214] FIG. 7C is an equivalent circuit diagram of a pixel where a transistor 6125 and a wiring 6126 are additionally provided to the pixel shown in FIG. 7B. Gate potential of the transistor 6125 is fixed by the wiring 6126. In addition, the transistors 6111 and 6125 are connected in series between the power supply line 6115 and the light emitting element 613. Therefore, in FIG. 7C, the transistor 6125 controls the amount of current supplied to the light emitting element 613

whereas the transistor 6111 controls whether the current is supplied or not to the light emitting element [[603]] 613.

[0224] A synthesis method of ~~2,4,6-tris(acridone-N-yl)-1,3,5-triazine~~ 2,4,6-tris(acridone-N-yl)-1,3,5-triazine will be described.